

COCCIDÆ OF BRITISH NORTH AMERICA.

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(Continued from Vol. XXXIII., page 336, 1901.)

Eulecanium fraxini, n. sp.—Adult ♀ scale 6 mm. long, 5 broad, 2 high; some individuals are practically circular in outline and variable in size. In July the scales are well covered with a grayish powdery secretion; this being removed they are reddish brown, considerably wrinkled and pitted, surface shiny, texture thick.

Boiled in potash the derm becomes very clear and transparent, showing some large gland-pits 24μ in diameter. Mouth-parts, legs and anal plates tinged with yellow. Antennæ practically colourless, of 7 joints, measuring in μ as follows:

Joint	1	(32)	2	(48)	3	(60)	4	(36)	5	(28)	6	(20)	7	(40)	in μ
"	24	"	44	"	64	"	40	"	24	"	20	"	36		
"	40	"	40	"	68	"	56	"	24	"	24	"	48		
"	40	"	44	"	68	"	56	"	24	"	24	"	52		

The last two lines of measurement seem to be of the normal type with a formula of 34721 (56).

Legs thin; front leg, coxa 84. Femur \times trochanter 180. Tibia 136. Tarsus 60 in length. Middle leg, coxa 108. Femur \times trochanter 176. Tibia 120. Tarsus 56. Hind leg, coxa 120. Femur \times trochanter 196. Tibia 132. Tarsus 64.

The average width of the legs, coxa 52, trochanter 52. Tibia 24. Tarsus 16. Spines of lateral clefts in threes, nearly of equal width and in length 36 and 56μ , respectively. Marginal spines 24μ long. Rostral loop long and stout.

Hab.—Ottawa, Ont., on twigs of white ash (*Fraxinus Americana*). Coll. Dr. Fletcher, November 2, 1901, and found by me at Andover, Mass., July 16, 1899, also on white ash. The slide mount which was prepared at that time does not show the derm gland-pits, but they were distinctly seen when the mount was made.

The scales have considerable superficial resemblance to *Eulecanium cerasifex*, Fitch, and *E. cynosbati*, Fitch. Structurally it differs from *Cynosbati* in not having 7×8 jointed antennæ, and in the form of 7 joints which has a very long third joint.

Dr. Fletcher also sent some blackberry twigs infested with *Aulacaspis rosæ*, which he received from Mr. J. D. Evans, of Trenton, Ont. They seem to be particularly abundant on the lower branches of the bushes (as is usually the case with this species). The species are from the same plantation where *Eulecanium Fitchi* was so remarkably abundant last summer.

Just recently I have received from Rev. Dr. Fyles, *Aspidiotus hederæ*, Vall., on ivy (*Hedera*); *Lecanium hesperidum*, L., on flowering maple (*Abutilon*) and on *Euonymus* sp., and *Dactylopius citri* on passion-flower, all found in a dwelling house at Levis, Quebec. The *Dactylopius* is new to the Canadian list and perhaps has been taken to be the very common pest of the greenhouse, *Dactylopius longispinus*, Targ. At this writing (February 24, 1902) there remain only two other species of *Coccidæ* from British North America not studied and probably new, received from Mr. John Dearness.

Below is a check-list giving their geographical distribution throughout the provinces :

Eriococcus borealis, Ckll.	Yukon Territory (Dawson City).
Phenococcus Dearnessi, King.	Ontario (London).
Ripersia basi, Ckll.	Ontario (Toronto).
Dactylopius longispinus, Targ.	In all the provinces.
“ citri, Boisd.	There is little doubt but this can be found in all the provinces.
Kermes Pettiti, Ehrh.	Ontario (Rice Lake).
Orthezia Americana, Walk.	Ontario, Quebec.
Asterolecanium variolosum, Ratz.	Ontario (Niagara, Ottawa).
Lecanium hesperidum, L.	In all the provinces.
“ pseudhesperidum, Ckll.	Ontario (Ottawa).
“ pini, King.	Ontario (London).
Eulecanium pyri, Schn.	Prince Edward Island.
“ antennatum, var. Ckll.	Ontario, Quebec.
“ juglandis, Bouché.	Ontario, Nova Scotia.
“ quercitronis, Fitch.	Ontario (London).
“ Fitchi, Sign.	Ontario, Nova Scotia, Manitoba.
“ Canadense, Ckll.	Ontario (Ottawa, Arnstein), Nova Scotia, Manitoba.
“ Fletcheri, Ckll.	Ontario (Ottawa).

<i>Eulecanium macluratum</i> , Ckll.	Ontario (Niagara).
“ <i>caryarum</i> , Ckll.	Ontario (Niagara).
“ <i>nigrofasciatum</i> , Perg.	Ontario (St. Catharines).
“ <i>cerasifex</i> , Fitch.	Ontario (Niagara Peninsula).
“ <i>pruinatum</i> , Cqul.	Ontario (St. Catharines).
“ <i>Websteri</i> , Ckll. and King.	Ontario, Nova Scotia, Prince Edward Island.
“ <i>caryæ</i> , Fitch.	Ontario (St. Catharines).
“ <i>armenicum</i> , Craw.	Quebec (Sherbrooke).
“ <i>cynosbati</i> , Fitch.	Ontario.
“ <i>corylifex</i> , Fitch.	Ontario (Ottawa, Nepigon), Quebec (Aylmer).
“ <i>quercifex</i> , Fitch.	Quebec (Knowlton).
“ <i>rosæ</i> , King.	Quebec (Sherbrooke).
“ <i>capreæ</i> , L.	Nova Scotia (Dartmouth).
“ <i>persicæ</i> , Fabr.	Nova Scotia.
“ <i>vini</i> , Bouché.	Nova Scotia (Kentville).
“ <i>Guignardi</i> , King.	Ontario (Niagara).
“ <i>Lymani</i> , King.	Quebec (St. Hilaire, North Hatley).
“ <i>fraxini</i> , King, n. sp.	Ontario (Ottawa).
<i>Pulvinaria innumerabilis</i> , Rathv.	Ontario.
“ <i>brassicæ</i> (?), Ckll.	Ontario.
“ <i>occidentalis</i> , Ckll.	Nova Scotia (Dartmouth), Prince Edward Island, British Columbia.
“ <i>tiliæ</i> , King and Ckll.	Ontario.
“ <i>viburni</i> , King.	Ontario, Quebec (Aylmer).
<i>Eriopeltis festucae</i> , Fonsa.	Nova Scotia, abundant ; Ontario (Ottawa, rare).
<i>Aspidiotus hederæ</i> , Vall.	Ontario, Prince Edward Island.
“ <i>Forbesi</i> , Johns.	Ontario, Quebec, Nova Scotia.
“ <i>ancylus</i> , Putn.	Ontario, Quebec, Nova Scotia.
“ <i>ostreæformis</i> , Curt.	British Columbia, Ontario, Prince Edward Island.
“ <i>perniciosus</i> , Comst.	Ontario.
“ <i>Dearnessi</i> , Ckll.	Ontario (London).
“ <i>diffinis</i> (?), Newst.	Ontario.
<i>Chrysomphalus dictyospermi</i> , Marg.	Ontario.
<i>Aulacaspis rosæ</i> , Bouché.	Ontario, Prince Edward Island.

* <i>Diaspis Boisduvalii</i> , Sign.	Ontario.
<i>Chionaspis pinifolii</i> , Fitch.	Ontario, Quebec, British Columbia.
“ <i>Lintneri</i> , Comst.	Ontario, Quebec, Prince Edward Island, Nova Scotia.
“ <i>corni</i> , Cooley.	Ontario.
“ <i>furfurus</i> , Fitch.	Ontario, Quebec, Prince Edward Island, Nova Scotia.
“ <i>salicis-nigræ</i> , Walsh.	Ontario.
<i>Hemichionaspis aspidistræ</i> , Sign.	Ontario.
<i>Mytilaspis ulmi</i> , L.	In all the provinces.

We have now 59 species of *Coccidæ* recorded from British North America ; the two more, probably new, would make 61 species.

Distribution by provinces : Ontario has produced the largest portion, 48 species ; Prince Edward Island and Nova Scotia with 13 each ; Quebec next with 9 ; British Columbia with 6, and Manitoba, 5.

Ottawa seems to lead, with London next, and then Niagara and St. Catharines. Very few other places produce more than two or three species each, and many only one.

At present there are 37 native and 22 introduced species.

I shall be pleased to receive and determine any material in *Coccidæ* found in Canada. I would say in this connection that the last of May and June are the two best months to find the genus *Pulvinaria*, and collecting for other species can be done the year round.

BOOK NOTICE.

GENERA INSECTORUM.—Published by P. Wytsman, 108 Boulevard du Nord, Brussels, Belgium.

The third and fourth parts of this work have now been issued. Part 3 consists of 40 pages and one plate, and forms a monograph of the tribes and genera of the family *Lathridiidae* (Coleoptera, Clavicornica); lists and bibliographical references of species are given. This is a very satisfactory study of these minute beetles by the Rev. R. P. Belon, of

*This was cited as an *Aulacaspis*, but Mr. Newstead has shown it to belong to *Diaspis*. (Ckll. in litt.)